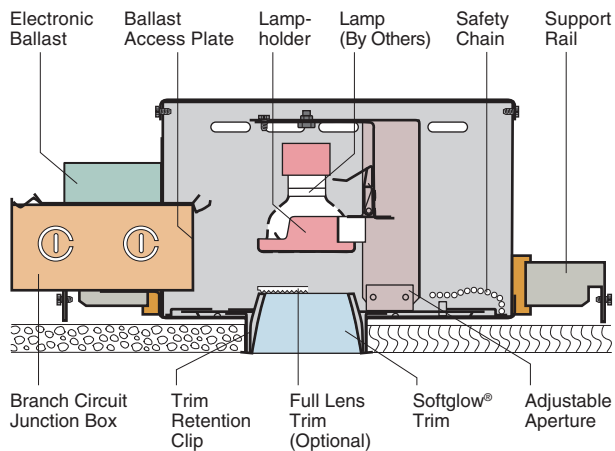


H2209

2 1/2" Square Downlight
20W to 39W
Ceramic Metal Halide MR-16 Lamp



Optics and Applications

This square downlight combines the aesthetic appeal of a small aperture with serious performance. The trim has parabolic contours to shape distribution and control brightness. Ceramic metal halide MR-16 beam patterns from 12° to 40° provide general or focused downlighting. Specify with matching directional and wall wash models, flanged or flush mount construction. Also see complementary small aperture rectangles.

Design Features

To simplify installation the fixture incorporates a unique patent pending locking aperture assembly which slides 1/4" in any direction and pivots 7° while maintaining optimum photometric performance. The lampholder accommodates two accessories. It tilts to release the lamp then engages and positions its replacement. The housing is vented for cool operation. Fixture supplied with support rails. Maximum ceiling thickness is 7/8". Ballast top or bottom service. Relamp from bottom only. Listed by UL for thru wiring.

Finish

Optical matte black paint on the housing and outside trim surfaces suppress light leaks. Standard trim is Softglow® clear. Other colors and finishes are available.

Ballasts

Electronic metal halide ballast provides constant output. Thermal protection with auto reset, quiet operation and automatic shutdown at end of life.

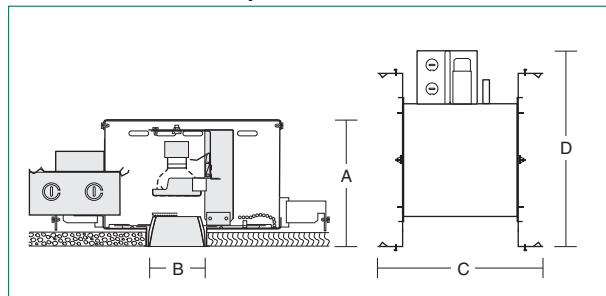
Bases

Porcelain sockets that turn and securely lock each lamp into place to retain the lamp for precise aiming.

General

Fixture is pre-wired and thermally protected, UL and C-UL listed, for damp location and eight wire, 75°C, branch circuit wiring. All products are union made IBEW. Designed and manufactured in the USA.

Dimensions and Lamps



Number	A Depth	B Aperture	C Width	D* Length	Lamp**
H2209	6 1/2" 165mm	2 1/2" sq. 63mm	12 1/2" 317mm	15 1/4" 387mm	20-39W Ceramic MH MR-16, GX10

*Minimum overall dimension, support rails extend to 26".

**To specify add watts and volts, e.g. H2209-20277.

Accessories

- SB Softglow black.
- SG Softglow gold.
- SH Softglow mocha.
- SP Softglow graphite.
- ST Softglow titanium.
- SW Softglow wheat.
- SY Softglow pewter.
- SZ Softglow bronze.
- F Fuse.
- FE Flange extension frame, Softglow® clear, colors available.
- FEW White-painted flange extension frame.
- FM For flush mount construction, see website.
- FLT2 Full lens trim, specify lens type, e.g. H2209FLT2LL.
- EC Emergency circuit, mini-can socket, 60W max.
- AOE1 Ballast 120V, auto-on restrike system.
- AOE2 Ballast 277V, auto-on restrike system, contact factory.
- BR Bright trim finish.
- LS Clear glass lamp shield.
- UV Ultraviolet filter.
- HL Hexell louver.
- LP Large prism lens.
- LL Linear lens.
- FR Frosted lens, specify type.
- WT White trim flange.
- WHT White complete trim.

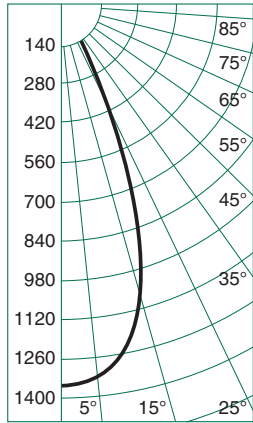
H47 H2209

Performance Datachart

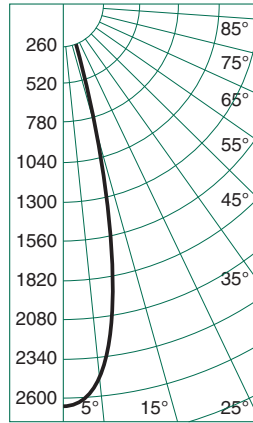
Single Unit Initial Footcandles, 30" Work Plane						Ceiling to Floor	Multiple Units Initial Footcandles, 30" Work Plane			
H2209 20W MH MR-16WFL Read Top Data						8'	Ceiling 80% Walls 50% Floor 20%			
H2209 20W MH MR-16FL Read Bottom Data							Spacing is Maximum Over Work Plane			
Nadir	10°		15°		20°		Spacing	RCR 1	RCR 3	RCR 8
FC	FC	Diam	FC	Diam	FC	Diam				
45	39	2'	32	3'	23	4'	4'	48	43	33
87	57	2'	28	3'	13	4'	2'	131	120	100
32	28	2'	23	3'	16	5'	5'	34	31	24
62	41	2'	20	3'	10	5'	3'	93	86	72
24	21	3'	17	4'	12	5'	5'	26	23	18
47	31	3'	15	4'	7	5'	3'	70	64	54
19	16	3'	14	5'	10	6'	6'	20	18	14
36	24	3'	12	5'	6	6'	4'	55	50	42
15	13	3'	11	5'	8	7'	7'	16	14	11
29	19	3'	9	5'	5	7'	4'	44	40	34

Single Unit Initial Footcandles, 30" Work Plane						Ceiling to Floor	Multiple Units Initial Footcandles, 30" Work Plane			
H2209 39W MH MR-16WFL Read Top Data						10'	Ceiling 80% Walls 50% Floor 20%			
H2209 39W MH MR-16FL Read Bottom Data							Spacing is Maximum Over Work Plane			
Nadir	10°		15°		20°		Spacing	RCR 1	RCR 3	RCR 8
FC	FC	Diam	FC	Diam	FC	Diam				
53	46	3'	38	4'	27	5'	5'	56	50	40
99	64	3'	32	4'	15	5'	3'	147	135	113
33	29	3'	24	5'	17	7'	7'	35	31	25
61	40	3'	20	5'	10	7'	4'	92	84	70
22	20	4'	16	6'	12	8'	8'	24	21	17
42	27	4'	14	6'	6	8'	5'	63	58	48
16	14	5'	12	7'	8	10'	10'	17	16	12
30	20	5'	10	7'	5	10'	6'	45	42	35
12	11	5'	9	8'	6	11'	11'	13	12	9
23	15	5'	7	8'	4	11'	7'	35	32	26

Candlepower Distribution



H2209 20W MH MR-16WFL GE
Eff. 68% S/M .73



H2209 20W MH MR-16 FL GE
Eff. 65% S/M .43

Candelas

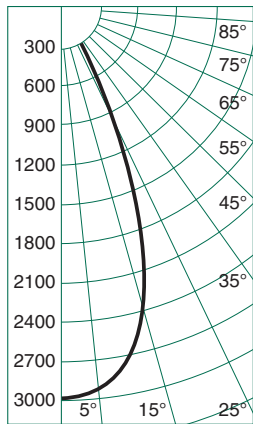
	20W	20W
o	1000*	1000*
0	1351	2636
5	1329	2459
10	1240	1797
15	1084	944
20	834	492
25	428	214
30	164	107
35	61	54
40	28	29
45	10	11
50	6	5
55	5	4
60	0	0
65	0	0
70	0	0
75	0	0
80	0	0
85	0	0
90	0	0

o Vertical Angles
* Initial Lamp Lumens

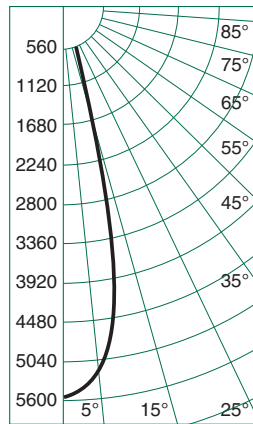
Coefficients of Utilization

Ceiling	80%		70%		50%		30%		0		
	70	50	30	10	50	10	50	10	50	10	
Wall %	70	50	30	10	50	10	50	10	50	10	
RCR	Zonal Cavity Method - Floor Reflectance 20%										
1	.82	.80	.79	.77	.78	.76	.76	.74	.73	.71	.68
2	.79	.76	.73	.71	.74	.70	.72	.69	.70	.67	.65
3	.75	.72	.69	.66	.71	.66	.69	.65	.67	.64	.62
4	.73	.68	.65	.62	.67	.62	.66	.61	.65	.61	.59
5	.70	.65	.62	.59	.64	.59	.63	.58	.62	.58	.56
6	.67	.62	.59	.56	.62	.56	.61	.56	.60	.55	.54
7	.65	.59	.56	.53	.59	.53	.58	.53	.57	.53	.52
8	.62	.57	.53	.51	.57	.51	.56	.51	.55	.51	.50
9	.60	.55	.51	.49	.54	.49	.54	.49	.53	.48	.48
10	.58	.52	.49	.47	.52	.47	.52	.47	.51	.47	.46

H2209 20W MH MR-16WFL x .95
H2209 39W MH MR-16WFL



H2209 39W MH MR-16WFL GE
Eff. 71% S/M .73



H2209 39W MH MR-16FL GE
Eff. 65% S/M .43

	39W	39W
o	2100*	2100*
0	2970	5549
5	2928	5177
10	2728	3782
15	2384	1987
20	1838	1034
25	941	452
30	360	222
35	132	113
40	61	60
45	21	21
50	12	12
55	10	8
60	0	0
65	0	0
70	0	0
75	0	0
80	0	0
85	0	0
90	0	0

o Vertical Angles
* Initial Lamp Lumens

Ceiling	80%		70%		50%		30%		0		
	70	50	30	10	50	10	50	10	50	10	
Wall %	70	50	30	10	50	10	50	10	50	10	
RCR	Zonal Cavity Method - Floor Reflectance 20%										
1	.75	.73	.72	.71	.72	.70	.69	.68	.67	.66	.63
2	.72	.70	.68	.66	.69	.65	.67	.64	.65	.63	.60
3	.70	.67	.64	.62	.66	.62	.64	.61	.63	.60	.58
4	.68	.64	.61	.59	.63	.59	.62	.58	.61	.58	.56
5	.65	.62	.59	.57	.61	.57	.60	.56	.59	.56	.55
6	.64	.59	.57	.55	.59	.55	.58	.54	.57	.54	.53
7	.62	.58	.55	.53	.57	.53	.56	.52	.56	.52	.51
8	.60	.56	.53	.51	.55	.51	.55	.51	.54	.51	.50
9	.58	.54	.51	.50	.54	.50	.53	.49	.53	.49	.49
10	.57	.53	.50	.48	.52	.48	.52	.48	.51	.48	.47

H2209 20W MH MR-16FL
H2209 39W MH MR-16FL